FED. RD. DIST. №	STATE	FED. AID PROJ. №	FISCAL YEAR
10	OHIO		1934

1/44

MONTGOMERY COUNTY
S.H. 64 SEC. "B"

MOT-48-0.00

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF CONSTRUCTION

DAYTON - LEBANON ROAD

S.H. № 64 SEC. "B"

MONTGOMERY COUNTY

WASHINGTON TOWNSHIP

NET LENGTH OF PROJECT=14417.86 LIN. FT.

CONVENTIONAL SIGNS

COUNTY LINE
TOWNSHIP LINE
SECTION LINE
CITY OR VILLAGE LINE
CENTER LINE
PROPERTY LINE
FENCE LINE
STEAM RAILROAD
POLE LINE
GUARD RAIL - NEW
GUARD RAIL - OLD
DRAIN PIPE - NEW
DRAIN PIPE - OLD

INDEX OF SHEETS

TITLE SHEET	SHEET	1
TYPICAL SECTIONS	"	2 & 3
GEN. NOTES	"	3
PLAN & PROFILE	"	4-17
CROSS SECTIONS	"	18-31
DRIVES & APPROACHES	"	32-33
STRUCTURES	"	34-43
SUMMARY	"	44

SCALES

PLAN 1"=50'
PROFILE - VERTICAL 1"=10'
PROFILE - HORIZONTAL 1"=50'
CROSS SECTIONS 1"=5'

C.O. Dafler Sand & Gravel Co

AVERAGE AGGREGATE HAUL = 11.5 MILES
" CEMENT " = 3.0 "

LOCATION PLAN

SCALE - OF - MILES
0 1 2 3 4 5

PORTION TO BE IMPROVED
STATE HIGHWAYS
DETOURS SHOWN THUS
IMPROVED COUNTY ROADS

The Standard Specifications of the State of Ohio, Department of Highways, in force on date of contract will govern this improvement.

I, hereby, approve these plans & declare that the making of this improvement will require the closing of the highway to traffic & that detours will be provided as shown on the plans & estimates.

The Necessary Right-of-Way as shown on the R/W Plans has been provided.

Approved Matthew Boylan P.E.
Date 9-14-34 Resident District Deputy Director

Approved Luke Brannon, P.E.
Date 9-14-34 Resident Division Deputy Director

Approved _____
Date _____ Chief Engineer, Bureau of Maintenance

Approved _____
Date _____ Chief Engineer, Bureau of Bridges

Approved Amer Hetty
Date 9-19-34 Chief Engineer, Bureau of Construction

Approved H. P. Chapman
Date 9-19-34 First Asst. Director & Chief Engineer

Approved A. M. Merrell
Date 9-19-34 Director of Highways

Recommended for Approval _____
Date _____ District Engineer, Bureau of Public Roads

Recommended for Approval _____
Date _____ Chief Engineer, Bureau of Public Roads

Approved _____
Date _____ Chief of Bureau

CONSTRUCTION BUREAU
JUL 27 1956
GROUND PHOTOLAB

CHECKING RECORD		
OFFICE	BY	DATE
RESIDENT		
DIVISION	S.A.	9-15-34
BUREAU OF MAINTENANCE		
BUREAU OF BRIDGES		
BUREAU OF CONSTRUCTION	H.W.A.	9-21-34
BUREAU OF PUBLIC ROADS		

RECEIVED
By M. Carroll
Clerk of Sales
9-19-1934
Date

APPROVED
E. M. Morris 9/19/1934
Planning Engineer Date
Remarks: B-20 Width 20' Width T-50 or T-61 Top Grading 2-5 Sts.

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS:-
B-T-50-60; B-T-50-70-71 E №1; G-7.07; S-27 P.C.1; SB-33; SBC-34; LBC-33; I-8 CB; I-2 & 2-2, I-1,2,3,4 & 5;

FILE №	MONTGOMERY 64 SEC. "B"
1339	Date of Letting 1934
	Contract №

TYPICAL SECTIONS

TYPE T-50 OR T-61

FOR CONSTRUCTION DETAILS SEE STD. DRWG. B-T-50-60

FED. RD. DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

2/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

DETAIL OF STONE UNDERDRAIN ITEM I-D No 1 DRAIN

Note:
Any additional material required in excess of that used in leveling course, Item B-50 or B-61 to adjust the existing pavement to level for binder coarse, to be designated and paid for as Extra Binder, Item T-50 or T-61

TYPICAL SECTIONS ① ② & ④ APPLY FROM:

Sta. 0+00	To	Sta. 20+59	=	2059.00	Lin. Ft.
" 20+73	"	" 33+83	=	1310.00	" "
" 34+01	"	" 45+21	=	1120.00	" "
" 45+31	"	" 55+30	=	999.00	" "
" 55+37	"	" 80+00	=	2463.00	" "
" 111+00	"	" 144+17.86	=	3317.86	" "
Total			=	11268.86	Lin. Ft.

This Underdrain Section Applies to either side of the Road & to Sections ① ② ④ ⑤ & ⑥.

DETAIL OF MOD. No. 2 LOOSE STONE DRAIN.

① Hand tamp lightly the No 2 stone to a finished depth of 7" before placing the No 46 layer.
② Hand tamp lightly the No 46 stone to a finished depth of 1" before applying the bituminous material.
③ In the application of bituminous material see that the surface is covered the full depth of the trench, forming an impervious mat.

See Cross Sections for Special Ditch construction.

THE ABOVE SECTION APPLIES FROM:

Sta. 33+83	To	Sta. 34+01	=	18.00	Lin. Ft.
" 45+21	"	" 45+31	=	10.00	" "
" 55+30	"	" 55+37	=	7.00	" "
" 84+00	"	" 90+00	=	600.00	" "
Total			=	635.00	Lin. Ft.

CHECKED	
Res. Office By	Date
Div. Office By W.W.A.	Date 9-12-34

APPROVED			
9-19-34	9-19-34		
RCA.	[illegible]		

FED. RD. DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

3/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

TYPICAL SECTIONS

TYPE T-50 — T-61

FOR CONSTRUCTION DETAILS, SEE STD. DRWGS. B-T-50-60

GENERAL NOTES -

EXISTING PIPE

All existing roadway drainage pipe & pipes under drives shall remain in place.

BERMS, SLOPES & DITCHES

All berms, slopes, & ditches are to be built according to the Typical Sections unless otherwise shown on the Cross Sections.

GUARD RAIL REMOVAL

Existing type "B" guard rail listed for removal on the plans shall be neatly piled, as directed by the Engineer, on the State Right-of-Way at the disposal of the State Maintenance Forces.

Bituminous Prime Coat Item T-30:

The 5" Waterbound Macadam Second Base Course and the Water Bound Macadam Leveling Course shall be given 0.4 gallons Bituminous Prime Coat per square yard, according to Item T-30 of the specifications.

The Bituminous Prime Coat Item T-30 shall be included for payment in price bid per square yard for 5" Water Bound Second Base Course and per cubic yard for Water Bound Macadam Leveling Course.

CONSTRUCTION NOTE ON WINTER OPERATIONS

Regarding the clause in the specifcations for the above project which reads as follows: "The work covered by this contract shall be conducted in such a manner that maximum employment of labor is afforded so far as practicable during the life of the contract."

The contractor shall commence construction operations immediately upon execution of the contract and shall prosecute during the winter months the work pertaining to side drainage and structures and shall perform such work of grading, paving, finishing of berms, and other items as may be permitted or requested by the Director.

TRAFFIC:

Contractor shall so conduct his construction operations so that the road will be open to traffic during the winter months (December, January and February), and as directed by the Engineer.

The contractor will not disturb any portion of the project that cannot be completed and in condition for traffic during the winter months (December, January and February).

If any portion of the project is not in condition for traffic, the contractor, at his own expense, will construct and maintain that portion as directed by the engineer.

CHECKED	
Res. Office By _____	Date _____
Div. Office By H.W.A.	Date 9-12-34

APPROVED			
9-19-34	9-19-34		

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

4/44

S.H. 64 SEC."B"
MONTGOMERY COUNTY

STRUCTURES 20' SPAN & UNDER

Nº	STATION	TYPE	SIZE	LENGTH	REMARKS
1	3+47	Pipe Ext.	18"	8'-0" on Lt, 10'-0" on Rt.	Ext. Ex. Culv. on Rt. & Lt. See Sheet Nº 34

TYPICAL SECTION OF EXIST. PAV'T.
AT BEGINNING OF PROJECT STA. 0+00

BENCH MARKS			
Station	Side	Elev.	Description
0+00	Rt.	998.93	Top Center of R/W Monument

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

All Elevations to U.S.G.S. Datum

STA. 0-500 to STA. 6+00

CHECKED	"PES" OFFICE	DIV. OFFICE
Drainage	J.W.B.	M.B.C.
Boxes	J.W.B.	H.W.A.
Bal. Points	H.W.A.	M.B.C.

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

5
44

S.H. 64 SEC. B
MONTGOMERY COUNTY

DRIVES

Station	Side	5" W.B. Mac. Base Course Item B-20 Sq. Yds	2½" Bit. Surface Course Item I-50 or I-61 Sq. Yds.	Traffic Bound Item I-17 Cu. Yds.	Sheet Nº
15+18	Lt.	10.68	11.56	2	33
TOTAL		10.68	11.56	2	

CLEAN EXIST. PIPE (LUMP SUM)

Stations	Side	15" V.S.P. Lin. Ft.
15+02.5 to 16+40.5	Lt.	138
Total		138

BENCH MARKS

Station	Side	Elevation	Description
15+75	Lt.	990.565	⊡ N.E. Cor. Bot. Step to Frame House

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pavement.

STA. 6+00 to STA. 17+00

CHECKED		DIV. OFFICE
Drainage	J.W.B.	M.B.C.
Boxes	J.W.B.	H.W.A.
Bal. Points	H.W.A.	M.B.C.

FINAL SURVEY — DATE — BY — SURVEYED — PLOTTED — CALC. — NOTE BOOK — PAGE — CHECKED

ORIGINAL SURVEY — SURVEYED — PLOTTED — CALC. — NOTE BOOK 55x58 — PAGE — CHECKED

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

6 / 44

SH. 64 SEC. B
MONTGOMERY COUNTY

DRIVES

Station	Side	5" W.B. Mac. Base Course Item B-20 Sq. Yds.	2½" Bit. Surface Course Item T-50 or Item T-61	Traffic Bound Item I-17 Cu. Yds.	Sheet Nº
26+21	Rt.	10.68	11.56	2	33
Total		10.68	11.56	2	

DEDUCTIONS

Station	Due to	Pav't. Lin. Ft.	Finishing Shoulders Slopes & Ditches (Both Sides) Lin. Ft.
20+59 to 20+73	Culvert	14	14
Total		14	14

BENCH MARKS

Station	Side	Elevation	Description
20+75	Rt.	986.06	▫S.W. Cor. E. Curb of Culvert
26+90	Rt.	993.585	▫N.W. Cor. Porch of Frame House

STRUCTURES 20' SPAN & UNDER

Nº	Station	Type	Size	Length	Remarks
2	20+66	Slab Br. Ext.	10'-0" Span 24' Rdwy.	2'-9" on Rt. 1'-7" on Lt.	Ext. Ex. Slab Br. on Lt. & Rt. Sheet Nº 35

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STA. 17+00 to STA. 28+00

CHECKED	RES. OFFICE	DIV. OFFICE
Drainage	J.W.B.	M.B.C.
Boxes	J.W.B.	H.W.A.
Bal. Points	H.W.A.	M.B.C.

FINAL — DATE
SURVEY — NOTE BOOK
PLOT — SITE BOOK
CALC. — CHECKER

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

7 / 44

SH 64 SEC. B
MONTGOMERY COUNTY

DRIVES & ROAD APPROACHES						
Station	Side	W.B. Macadam Base Courses Item B-20 Sq. Yds. 1st. 5"	2nd 5"	2½" Bit. Surface Course Item I-50 Sq. Yds.	Traffic Bound Item I-17 Cu. Yds.	Sheet No
32+55	Lt.	10.68		11.56	2	33
34+14.5	Lt.	64.05	64.05	62.58	4	32
34+14.5	Rt.	59.56	59.56	58.27	3	32
Total		134.29	123.61	132.41	9	

REMOVE & STORE EXIST TYPE "B" GUARD RAIL (ITEM I-15)		
Stations	Side	Lin. Ft.
33+93 to 34+01	Lt.	8
34+01 to 34+02 on Skew	Lt.	9
33+85 to 34+01	Rt.	16
34+01 to 34+02 on Skew	Rt.	7
Total		40

BENCH MARKS			
Station	Side	Elevation	Description
32+00	Lt.	990.635	▫ S.E. Cor. Bot. Step to Frame House
34+00	Rt.	986.735	▫ S.E. Cor. Retaining Wall

ROADWAY DRAINAGE		
Stations	Side	24" Pipe Lin. Ft.
32+92.46 to 33+87.46	Rt.	95
Total		95

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STRUCTURES 20' SPAN & UNDER					
No	Station	Type	Size	Length	Remarks
3	32+90.3	Pipe Ext.	21"	4'-0" on Lt. 12'-7" on Rt.	Ext. Ex. Pipe Culv. on Rt. & Lt. See Sheet No 36
4	33+88	Conc. Box	3'x3'	56'-0"	Remove Ex. Box. Culv. Build new. See Sheet No 36
5	34+14.5 Lt.	Corr. M.P.	24"	40'-0"	Remove Ex. Pipe Culv. Build new. See Sheet No 37

STA. 28+00 to STA. 39+00

CHECKED	P.S. OFFICE	DIV. OFFICE
Drainage	J.W.B.	M.B.C.
Boxes	J.W.B.	H.W.A.
Bat. Points	H.W.A.	M.B.C.

FED. AID DIST. No.	STATE	FED. AID PROJ.	FISCAL YEAR
10	OHIO		1934

8/44

S.H. 64 SEC. B
MONTGOMERY COUNTY

DRIVES					
Station	Side	5" W.B. Mac. Base Course Item B-20 Sq. Yds.	2½" Bit. Surface Course Item I-50 or 5" Item I-61 Sq. Yds.	Traffic Bound Item I-17 Cu. Yds.	Sheet No.
46+92	Rt.	10.72	11.60	2	33
47+51	Lt.	10.72	11.60	2	33
Total		21.44	23.20	4	

STRUCTURES 20' SPAN & UNDER					
No.	Station	Type	Size	Length	Remarks
6	45+26.58	Conc. Box	3'-0" x 2'-0"	49'-0"	Remove Exist. Box Culv. Build new. See Sheet No. 34

CHECKED	RES. OFFICE	DIV. OFFICE
Drainage	J.W.B.	M.B.C.
Boxes	J.W.B.	H.W.A.
Bal. Points	H.W.A.	M.B.C.

BENCH MARKS			
Station	Side	Elevation	Description
45+20	Rt.	1004.46	⊡ N.W. Cor. E. Headwall of Culvert

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STA. 39+00 to STA. 50+00

FED.AID DIST. Nº	STATE	FED.AID PROJ.	FISCAL YEAR
10	OHIO		1934

9/44

S.H. 64 SEC. B
MONTGOMERY COUNTY

DRIVES			
Station	Side	Traffic Bound Item I-17 Cu. Yds.	Sheet Nº
59+62	Lt.	3	33
Total		3	

REMOVE AND STORE EXIST. TYPE "B" GUARD RAIL (ITEM I-15)		
Station	Side	Lin. Ft.
55+21 to 55+46	Rt.	25
55+22 to 55+46	Lt.	24
Total		49

BENCH MARKS			
Station	Side	Elevation	Description
54+60	Lt.	1005.64	Spike in E. Side of 30" Ash Tree
59+05	Rt.	1006.81	▫ N.W. Cor. E. Headwall of Culvert.

STRUCTURES 20' SPAN & UNDER					
Nº	Station	Type	Size	Length	Remarks
7	55+33.35	Pipe Culv.	24"	44'-0"	Remove Ex. Pipe Culv. Build new. See Sheet Nº 38
8	59+01.9	Pipe Culv. Ext.	24"	6'-0" on Rt, 4'-0" on Lt.	Ext. Ex. Culv. on Rt. & Lt. See Sheet Nº 38

CHECKED	RES. OFFICE	DIV. OFFICE
Drainage	J.W.B.	M.B.C.
Boxes	J.W.B.	H.W.A.
Bal. Points	H.W.A.	M.B.C.

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STA. 50+00 to STA. 61+00

FED. AID DIST. No.	STATE	FED. AID PROJ.	FISCAL YEAR
10	OHIO		1934

10
44

S.H. 64 SEC. B
MONTGOMERY COUNTY

DRIVES & ROAD APPROACHES						
Station	Side	W. Bound Mac. Base Course Item B-80 Sq. Yds. 1st. 5"	2nd 5"	2½" Bit. Surface Course Item I-50 Sq. Yds.	Traffic Bound Item I-17 Cu. Yds.	Sheet No.
62+10.12	Rt.	68.50	68.50	67.44	4	32
63+90	Lt.	10.68		11.56	2	33
65+42	Rt.	10.68		11.56	2	33
71+03	Rt.				3	33
Total		89.86	68.50	90.56	11	

STRUCTURES 20' SPAN & UNDER					
No.	Station	Type	Size	Length	Remarks
9	67+45	Conc. Box Ext.	6'-0" x 4'-0"	13'-0" on Lt. 20'-6" on Rt.	Ext. Ex. Culv. on Rt. & Lt. See Sheet No. 39

BENCH MARKS			
Station	Side	Elevation	Description
65+25	Rt.	999.11	□ S. Edge Bottom Step of Stone House
67+40	Rt.	995.00	□ S.W. Cor. E. Headwall of Culvert

CHECKED	RE-SO. OFFICE	FIELD OFFICE
Drainage Boxes	J.W.B.	M.B.C.
Bol. Points	J.W.B.	H.W.A.
	H.W.A.	M.B.C.

See Typical Section For Relation Between Profile Grade & Crown of Finished Pav't.

STA. 61+00 to STA. 72+00

FED.AID DIST. Nº	STATE	FED.AID PROJ.	FISCAL YEAR
10	OHIO		1934

11/44

SH 64 SEC. B
MONTGOMERY COUNTY

DRIVES

Station	Side	Traffic Bound Item I-17 Cu. Yds.	Sheet Nº
75+53	Rt.	3	33
75+63	Lt.	3	33
Total		6	

ROADWAY DRAINAGE

Station	Side	12" Pipe Lin. Ft.	Std. Nº 2-2 Catch Basin Std. Dwg. I-8 CB. Nº 1-2 & 2-2. Each
77+71.8 to 83+01.8	Rt	528	1 *
83+02.8	Rt.		1
Total		528	2

* Catch Basin to be built @ Sta. 80+01.8

BENCH MARKS

Station	Side	Elevation	Description
73+20	Rt.	994.19	▫ E. Cor. Top of Milestone
77+75	Rt.	976.515	▫ N.W. Cor. E. Headwall of Culvert

STRUCTURES 20' SPAN & UNDER

Nº	Station	Type	Size	Length	Remarks
10	77+59.5	Mod. Std. Conc. Box	8'-0" x 5'-0"	11'-6" on Lt. 20 4 7/8" on Rt.	Ext. Ex. Culv. on Lt. & Rt. See Sheet Nº 40 & 41

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STA. 72+00 to STA. 83+00

CHECKED		OFFICE
Drainage	W.B.	M.B.C.
Bases	J.W.B.	H.W.A.
Bol. Points	H.W.A.	M.B.C.

FED. AID DIST. No	STATE	FED. AID PROJ.	FISCAL YEAR
10	OHIO		1934

12
44

SH 64 SEC. B
MONTGOMERY COUNTY

DRIVES & ROAD APPROACHES

Station	Side	W.B. Macadam Base Course Item B-20 Sq. Yds. 1st 5"	2nd 5"	2½" Bit. Surface Course Item I-50 or I-51 Sq. Yds.	Traffic Bound Item I-17 Cu. Yds.	Sheet No
86+91	Lt.				3	33
86+91	Rt.	10.68		11.56	2	33
87+84	Rt.				3	33
89+73	Rt.				3	33
89+84	Lt.	76.82	76.82	75.26	3	32
Total		87.50	76.82	86.82	14	

STRUCTURES 20' SPAN & UNDER

No	Station	Type	Size	Length	Remarks
11	89+84 Lt.	Side Rd. Culv.	15"	38'-0"	Remove Ex. Side Rd. Culv. Build new. See Sheet No 42

BENCH MARKS

Station	Side	Elevation	Description
87+50	Rt.	980.095	□ S.W. Cor. Step to Frame House
90+00	Lt.	972.35	□ N.W. Cor. N. Headwall of Culvert.

STA. 83+00 to STA. 94+00

CHECKED	K.S.	OFFICE	DIV.
Drainage	J.W.B.	M.B.C.	
Boxes	J.W.B.	H.W.A.	
Bol. Points	H.W.A.	M.B.C.	

FINAL SURVEY
SURVEYED
PROFILED
TEMPLATE
NOTE BOOK
AREAS
AREAS CHECKED
NOTE BOOK
NO.
DATE

FED. AID DIST. Nº	STATE	FED. AID PROJ.	FISCAL YEAR
10	OHIO		1934

13
44

SH 64 SEC. B
MONTGOMERY COUNTY

DRIVES			
Station	Side	Traffic Bound Item I-17 Cu. Yds.	Sheet Nº
97+78	Rt.	3	33
Total		3	

STRUCTURES 20' SPAN & UNDER					
Nº	Station	Type	Size	Length	Remarks
12	97+63.33	Conc. Box	6'X4'	12'-6" on Lt. 19'-3" on Rt.	Ext. Ex. Box Culv. on Lt. & Rt. See Sheet Nº 42

CHECKED	RES. OFFICE	DIV. OFFICE
Drainage	W.B.	M.B.C.
Boxes	J.W.B.	H.W.A.
Bol. Points	H.W.A.	M.B.C.

BENCH MARK			
Station	Side	Elevation	Description
97+60	Rt.	957.33	▫N.W. Cor. E. Headwall of Culvert.

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STA. 94+00 to STA. 105+00

FED.AID DIST.Nº	STATE	FED.AID PROJ.	FISCAL YEAR
10	OHIO		1934

14
44

SH 64 SEC. B
MONTGOMERY COUNTY

DRIVES

Station	Side	5" W.B. Mac. Base Course Item B-20 Sq. Yds.	2½" Bit. Surface Course Item I-50 or I-61 Sq. Yds.	Traffic Bound Item I-17 Cu. Yds.	Sheet Nº
105+25	Lt	10.68	11.56	2	33
113+92	Rt.	10.68	11.56	2	33
Total		21.36	23.12	4	

CHECKED	RES. OFFICE	DIV. OFFICE
Drainage	W.B.	K.B.C.
Boxes	J.W.B.	H.W.A.
Bal. Points	H.W.A.	M.B.C.

BENCH MARKS

Station	Side	Elevation	Description
105+20	Lt.	966.975	▫ Top Center N. Conc. Gate Post
114+00	Rt.	976.10	Spike on W. Side 16" Bl. Locust.

See: Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STA. 105+00 to STA. 116+00

FED. AID DIST. Nº	STATE	FED. AID PROJ.	FISCAL YEAR
10	OHIO		1934

15
44

SH 64 SEC. B
MONTGOMERY COUNTY

DRIVES & ROAD APPROACHES

Station	Side	W.B. Macadam Base Courses Item B-20 Sq. Yds. 1st 5"	2nd 5"	2½" Bit. Surface Course Item I-50 or I-51 Sq. Yds.	Traffic Bound Item I-17 Cu. Yds.	Sheet Nº
117+33	Rt.	75.10	75.10	73.62	1	32
117+33	Lt.	75.78	75.78	74.27	4	32
118+51	Lt.	28.25		30.47	4	33
123+57	Lt.	11.70		11.58	2	33
125+21	Rt.	10.68		11.56	2	33
Total		201.51	150.88	201.50	13	

STRUCTURES 20' SPAN & UNDER

Nº	Station	Type	Size	Length	Remarks
13	117+33 Lt.	Side Rd. Culv.	24"	50'-0"	Remove Ex. Side Rd. Culv. Build new. See Sheet Nº 43

BENCH MARKS

Station	Side	Elevation	Description
119+00	Lt.	979.92	▫ N. End Gas Island
124+00	Lt.	985.32	▫ N.E. Cor. Bot. Step to House

CHECKED	RES. OFFICE	DIV. OFFICE
Drainage	W.B.	M.B.C.
Boxes	J.W.B.	H.W.A.
Bol. Points	H.W.A.	M.B.C.

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STA. 116+00 to STA. 127+00

35a

FED. AID DIST. No	STATE	FED. AID PROJ.	FISCAL YEAR
10	OHIO		1934

16
44

SH 64 SEC. B
MONTGOMERY COUNTY

DRIVES					
Station	Side	5" W.B. Mac. Base Course Item B-20 Sq. Yds.	2½" Bit. Surface Course Item T-50 Sq. Yds.	Traffic Bound Item I-17 Cu. Yds.	Sheet No
135+87	Lt.	11.69	11.57	2	33
Total		11.69	11.57	2	

STRUCTURES 20' SPAN & UNDER					
No	Station	Type	Size	Length	Remarks
14	132+57.25	Conc. Box Ext.	6'x4'	14'-0" on Rt. 19'-6" on Lt.	Ext. Ex. Culv. on Rt. & Lt. See Sheet No 43

CHECKED	REF'S OFFICE	DIV. OFFICE
Drainage	J. N.B.	M.B.C.
Boxes	J. N.B.	H.W.A.
Bal. Points	H.W.A.	M.B.C. & H.W.A.

BENCH MARKS			
Station	Side	Elevation	Description
132+50	Rt.	959.93	S.W. Cor. E. Headwall of Culvert.

See Typical Section For Relation Between Exist. Profile Grade & Crown of Finished Pav't.

STA. 127+00 to STA. 138+00

95a

FED.AID DIST. Nº	STATE	FED.AID PROJ.	FISCAL YEAR
10	OHIO		1934

17
44

SH 64 SEC. B
MONTGOMERY COUNTY

FLARE STA. 144+17.86

ESTIMATED QUANTITIES

Cutting & Sealing Exist. Pav't. Edges (Item E-10)	88 Lin. Ft.
5" W.B. Macadam 1st. Base Course (Item B-20)	23.22 Sq. Yds.
5" W.B. Macadam 2nd Base Course (Item B-20)	23.22 Sq. Yds.
2 1/2" Bit. Surface Course (Item T-50) or (Item T-61)	88.00 Sq. Yds.
Excav. (Incl. in Roadway Quan.)	7 Cu. Yds.
Finishing Shoulders, Slopes & Ditches (Both Sides)	44 Lin. Ft.

DRIVES & FLARES

Station	Side	W.B. Macadam Base Course Item B-20 Sq. Yds.		2 1/2" Bit. Surface Course Item T-50 or T-61 Sq. Yds.	Traffic Bound Item T-17 Cu. Yds.	Finishing Shoulders Slopes & Ditches (Both Sides) Lin. Ft.	Cut & Seal. Ex. Pav't. Edges Item E-10 Lin. Ft.	Sheet Nº
		1st 5"	2nd 5"					
139+98	Rt.	10.68		11.56	2			33
144+17.86		23.22	23.22	88.00		44	88	17
Total		33.90	23.22	99.56	2	44	88	

TYPICAL SECTION OF EXIST. PAV'T. AT END OF PROJECT STA. 144+17.86

CHECKED	RES. OFFICE	DIV. OFFICE
Drainage	J. W.B.	M.B.C.
Boxes	J. W.B.	H.W.A.
Bol. Points	H.W.A.	M.B.C. & H.W.A.

STA. 138+00 to STA. 149+00

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

18/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

Plotted By: J.W.B.
Templates Plotted: J.W.B.
Templates Chk'd: R.C.M. + M.B.C.
Drainage Chk'd: M.B.C.
Areas By: J.W.B.
Volumes By: J.W.B.
Volumes Chk'd: A.F.
Balance Points: H.W.A.

STA. 0+00 = BEGINNING OF PROJECT

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
3+47	3	65		
			1	14
3+38	4	16		
			6	13
3+00	4	3		
			13	13
2+00	3	4		
			24	9
11+00	10	1		
			28	11
0+00	5	5		

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
8+00	4	3		
			15	9
7+00	4	2		
			24	9
6+00	9	3		
			30	11
5+00	7	3		
			24	13
4+00	6	4		
			8	10
3+54.9	4	8		
			1	11

STA. 0+00 to STA. 8+00

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

19
44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
15+00	6	7		
			22	19
14+00	6	3		
			22	13
13+00	6	4		
			17	20
12+00	3	7		
			13	19
11+00	4	3		
			15	13
10+00	4	4		
			15	13
9+00	4	3		
			15	11

Excav 315 Cu. Yds.
Emb 263 " "
Emb 120% 315 " "

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
20+50	4	9		
			8	16
20+00	5	8		
			17	32
19+00	4	9		
			13	33
18+00	3	9		
			13	41
17+00	4	13		
			12	35
			13	39
			1	4
16+00	3	8		
			17	28
			4	

Sta 16+10

Plotted By: J.W.B.
Templates Plotted: J.W.B.
Templates Chk'd: R.C.M. + M.B.C.
Drainage Chk'd: M.B.C.
Areas By: J.W.B.
Volumes By: J.W.B.
Volumes Chk'd: A.S.
Balance Points: H.K.A.

58.97

STA. 9+00 to STA. 20+50

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

20/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

Exist R/W

23+00
989.20

22+00
988.80

21+00
985.58

20+82
985.52

Slope 1½:1

20+73
985.45

BRIDGE STA. 20+59 To STA. 20+73

Slope 1½:1

20+59
985.47

Exist. R/W

27+00
993.19

26+12
991.43

26+09
991.40

PR. DR. 26+21 RT.

26+00
991.20

25+00
989.84

24+00
989.77

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
23+00	6	5		
			17	24
22+00	3	8		
			13	26
21+00	4	6		
			3	4
20+82	4	4		
			2	16
20+73	8	92		
			0	0
20+59	3	123		
			1	22

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
27+00	2	10		
			7	37
26+12	2	13		
			0	1
26+09	3	7		
			3	
26+00	3	7		
			11	26
25+00	3	7		
			19	22
24+00	7	5		
			24	19

Excav 262 Cu Yds.
Emb 625 " "
Emb + 20% 750 " "
Borrow 488 " "

Plotted But: J.W.B.
Templates Plotted: J.W.B. R.C.M. - M.G.C.
Templates Chkd: R.C.M. M.B.C.
Drainage Chkd: M.B.C.
Areas By: J.W.B. A.R.
Volumes By: J.W.B.
Volumes Chkd: H.W.A.
Balance Points: H.W.A.

58.97

STA. 20+61 to STA. 27+00

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

21/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

Plotted By: J.W.B.
Templates Plotted: J.W.B.
Templates Chkd.: R.C.M. & M.B.C.
Drainage Chkd.: M.B.C.
Areas By: J.W.B.
Volumes By: J.W.B.
Volumes Chkd.: A.R.
Balance Points: A.W.A.

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
31+00	3	8		
			11	30
30+00	3	8		
			13	22
29+00	4	4		
			13	19
28+00	3	6		
			6	11
27+50	3	6		
			0	1
27+48	3	10		
			4	18

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
34+27.9	3	18		
			6	12
34+02	10	8		
			4	9
33+91.5	13	37		
			8	39
			24	120
			16	81
33+00	1	34		
			2	19
32+82.6	4	24		
			4	
			14	44
32+00	5	5		
			15	24

STA 27+48 to STA 34+27.9

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

22
44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

RD. APPR. STA. 34+145
LT. + RT.

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
40+00	8	1		
			26	6
39+00	6	2		
			22	13
38+00	6	5		
			20	19
37+00	5	5		
			19	17
36+00	5	4		
			17	20
35+00	4	7		
			39	
			9	33

FULL WIDTH SECTION STA. 45+21 to STA. 45+31

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
46+00	7	2		
			20	9
45+00	4	3		
			20	11
44+00	7	3		
			22	15
43+00	5	5		
			17	19
42+00	4	5		
			15	13
41+00	4	2		
			22	6

STA. 35+00 to STA. 46+00

Plotted By: J.W.B.
Templates Plotted: J.W.B. M.B.C.
Templates Chkd: R.C.M. M.B.C.
Drainage Chkd: J.W.B.
Areas - Cu. By: J.W.B.
Volum. - Chkd: A.P.
Balance Points: H.W.A.

35-36.97

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

23
44

S.H.64 SEC. "B"
MONTGOMERY COUNTY

Plotted By: J.W.B.
Templates Plotted: J.W.B.
Templates Chkd: R.C.M. M.B.C.
Drainage Chkd: M.B.C.
Areas By: J.W.B.
Volumes Cpt: J.W.B.
Volumes Chkd: A.R.
Balance Points: H.W.A.

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
52+00	4	3		
			17	11
51+00	5	3		
			19	11
50+00	5	3		
			17	13
49+00	4	4		
			15	19
48+00	4	6		
			2	
47+00	3	13		
			2	
			19	28

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
58+00	5	4		
			17	11
57+00	4	2		
			19	7
56+00	6	2		
			19	22
55+00	4	10		
			30	20
54+00	12	1		
			35	7
53+00	7	3		
			20	11

STA. 47+00 to STA. 58+00

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

24/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

Exist R/W

Exist R/W

64+00
999.14

PR. DR. 63+90 LT.

63+00
1000.90

RD. APPR. 62+10.12 RT.

62+00
1004.06

61+00
1005.51

60+00
1007.25

58+97.9
1008.23

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
4	4		
		4	
		13	15
3	4		
		23	
		13	22
4	8		
		22	20
8	3		
		24	15
5	5		
		15	13
3	2		
		14	11

Exist R/W

Exist R/W

70+00
998.43

69+00
996.60

68+00
994.65

67+00
995.13

66+00
998.36

PR. DR. 65+42 RT.

65+00
998.92

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
5	3		
		26	9
9	2		
		24	15
4	6		
		19	15
6	2		
		19	7
4	2		
		2	
		17	17
5	7		
		17	20

Plotted By: J.W.B.
Templates Plotted: J.W.B.
Templates Chkd: R.C.M. M.B.C.
Drainage Chkd: M.B.C.
Areas By: J.W.B.
Volumes "4": J.W.B.
Volumes Chkd: R.R.
Balance Points: H.W.A.

950.97

STA. 58+97.9 to STA. 70+00

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

25/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
77+00	10	0		
			28	9
76+00	5	5		
			19	13
75+00	5	3		
			24	7
74+00	8	1		
			24	7
73+00	5	3		
			28	6
72+00	10	0		
			28	7
71+00	5	4		
			19	13

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
83+00	2	16		
			4	82
82+00	0	28		
			13	67
81+00	7	8		
			20	35
80+00	4	11		
			20	37
79+00	7	9		
			17	52
78+00	2	19		
			22	35

Excav 780 Cu. Yds.
Emb 630 " "
Emb +20% 780 " "

Plotted By: J.W.B.
Templates Plotted: J.W.B. M.B.C.
Templates Chk'd: M.B.C.
Drainage Ln. Nd:
Areas By: J.W.B. + A.R.
Volumes E. J.W.B.
Volumes Chk'd: A.R. + M.B.C.
Balance Points: H.W.A.

STA. 71+00 to STA. 83+00

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

26/44

S.H.64 SEC. "B"
MONTGOMERY COUNTY

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

Exist R/W — Exist R/W

974.99
89+00
974.61

978.04
88+00
978.65

FD. DR. 87+84 RT.

979.87
87+00
981.33

FD. DR. 86+91 LT.

PR. DR. 86+91 RT.

980.46
86+00
981.32

85+00
980.67

977.88
84+00

STA. 84+00 BEGINNING OF FULL WIDTH SECTION

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	23	0		
			159	0
	63	0		
			307	0
			2	
	103	0		
			7	
			333	0
			5	
	77	0		
			249	0
			282	0
			33	0
	75	0		
			159	15
Ahead	11	8		
Back	6	8		
			15	44

Exist R/W — Exist R/W

93+00
960.75

92+00
963.34

91+00
966.87

Sta. 85+1.17

90+05
970.48

STA. 90+00 END OF FULL WIDTH SECTION.

971.50
89+95
970.91

RD. APPR. 89+84 LT.

FD. DR. 89+73 RT.

972.42
89+70
972.02

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	2	9		
			9	26
	3	5		
			11	19
	3	5		
			9	18
	2	5		
			4	3
			29	
	17	12	2	
			20	11
	27	12		
			65	16

Plotted By: J.W.B.
Templates By: J.W.B. + H.W.A.
Templates Checked: M.B.C.
Drainage Chk'd: M.B.C.
Areas By: J.W.B. + A.R.
Volumes By: J.W.B. + A.R.
Volumes Chk'd: M.B.C.
Balance Points: H.W.A.

STA. 84+00 to STA. 93+00

FED. AID DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR
10	OHIO		1934

27/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

Exist R/W

99+00
956.20

98+00
956.21

97+00
956.68

96+00
957.07

95+00
957.80

94+00
958.87

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
99+00	1	9		
			4	33
98+00	1	9		
			4	33
97+00	1	9		
			4	35
96+00	1	10		
			6	41
95+00	2	12		
			4	46
94+00	0	13		
			4	41

Excav 1278 Cu. Yds.
Emb. 489 " "
Emb. 20% 587 " "
Waste 691 " "

Plotted By: J.W.B. H.W.A.
Templates Plotted: M.B.C.
Templates Chk'd: M.B.C.
Drainage Chk'd: A.R.
Areas By: A.R.
Volumes By: M.B.C.
Volumes Chk'd: H.W.A.
Balance Points:

105+00
960.70

PR.D.R. 105+25 LT.

104+00
959.39

103+00
958.27

102+00
957.75

101+00
957.03

100+00
956.61

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
105+00	5	5		
			2	
104+00	2	6		
			13	20
103+00	2	7		
			7	24
102+00	2	9		
			7	30
101+00	2	7		
			7	30
100+00	1	9		
			6	30
			4	33

STA. 105+00

STA 94+00 to STA 105+00

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

28/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

Exist. R/W

110+00
968.16

109+50
967.22

109+00
966.61

Sta. 109+00 to Sta. 111+00
Transition from 7½" Min. Resurf.
To 2½" Min. Resurf.

108+00
965.69

107+00
964.49

106+00
962.80

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
110+00	6	1		
			9	5
109+50	4	4		
			7	8
109+00	4	5		
			11	26
108+00	2	9		
			11	26
107+00	4	5		
			13	19
106+00	3	5		
			15	19

35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

Exist. R/W

Elev. 974.8

116+00
978.05

Elev. 974.5

115+00
977.93

114+00
976.66

PR. DR. 113+92 RT.

113+00
974.31

112+00
972.44

111+00
970.41

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
116+00	10	2		
			30	6
115+00	6	1		
			26	7
114+00	8	3		
			3	
113+00	13	0	39	6
			41	2
112+00	9	1		
			30	4
111+00	7	1		
			24	4

STA. 106+00 to STA. 116+00

Plotted By: J.W.B.
Templates Plotted: H.W.A.
Templates Chk'd: M.B.C.
Drainage Chk'd: M.B.C.
Areas By: A.R.
Volumes By: A.R.
Volumes Chk'd: M.B.C.
Balance Points: H.W.A.

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

29/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
12	1		
		37	6
8	2		
		30	9
8	3		
		39	6
13	0		
		12	
		52	2
15	1		
		56	7
15	3		
		46	9
		50	

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
11	2		
		61	7
22	2		
		67	11
14	4		
		3	
		52	11
14	2		
		48	6
12	1		
		3	
		41	6
10	2		
		41	6

STA. 117+00 to STA. 128+00

Plotted By: J.W.B.
Templates Plotted: J.W.B.
Templates Chkd: M.B.C.
Drainage Chkd: M.B.C.
Areas By: J.W.B.
Volumes By: J.W.B.
Volumes Chkd: ART M.B.C.
Balance Points: H.K.A.

36257

FED. AID DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR
10	OHIO		1934

30/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
134+00	6	7		
			37	28
133+00	14	8		
			48	32
132+00	12	9		
			46	19
131+00	13	1		
			41	4
130+00	9	1		
			46	4
129+00	16	1		
			50	6

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
140+00	9	3		
			2	
139+00	11	2		
			44	6
138+00	13	1		
			50	6
137+00	14	2		
			50	6
136+00	13	1	5	
			41	6
135+00	9	2		
			28	17

STA. 129+00 to STA. 140+00

Plotted By: J.W.B.
Templates By: J.W.B.
Templates Chkd: M.B.C.
Drainage Chkd: M.B.C.
Areas By: J.W.B.
Volume* By: J.W.B.
Volume* Chkd: P.P. & M.B.C.
Balance Points: H.W.A.

36

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

31/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

Templates Plotted: J.W.B.
Templates Chk'd: M.B.C.
Drainage Chk'd: M.B.C.
Areas By: J.W.B.
Volumes By: J.W.B.
Volumes Chk'd: A.R.
Balance Points:

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
11	4	7	
		8	3
13	4		
		50	9
14	1		
		43	7
9	3		
		46	9
16	2		
		46	9

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill

STA 141+00 to STA 144+17.86

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

32
44

S.H.64 SEC. "B"
MONTGOMERY COUNTY

ROAD APPROACH
STA. 34+14.5 Rt. & Lt.
SOCIAL ROW ROAD

STA. 34+14.5 Lt.

5" W.B. Macadam 1st Base Course (Item B-20)	64.05 Sq. Yds.
5" W.B. Macadam 2nd Base Course (Item B-20)	64.05 Sq. Yds.
2½" T-50 Surface or T-61	62.58 Sq. Yds.
Traffic Bound (Item I-17)	4 Cu. Yds.
Excav. (Included in Roadway Excav.)	21 Cu. Yds.

STA. 34+14.5 Rt.

5" W.B. Macadam 1st Base Course (Item B-20)	59.56 Sq. Yds.
5" W.B. Macadam 2nd Base Course (Item B-20)	59.56 Sq. Yds.
2½" T-50 Surface or T-61	58.27 Sq. Yds.
Traffic Bound (Item I-17)	3 Cu. Yds.
Excav. (Included in Roadway Excav.)	18 Cu. Yds.

ROAD APPROACH
STA. 89+84 Lt.
SHEEHAN ROAD
ESTIMATED QUANTITIES

5" W.B. Macadam 1st Base Course (Item B-20)	76.82 Sq. Yds.
5" W.B. Macadam 2nd Base Course (Item B-20)	76.82 Sq. Yds.
2½" T-50 Surface Course or T-61	75.26 Sq. Yds.
Excav. (Included in Roadway Excav.)	26 Cu. Yds.
Traffic Bound (Item I-17)	3 Cu. Yds.

ROAD APPROACH
STA. 62+10.12 Rt.
NUTT ROAD

ESTIMATED QUANTITIES

5" W.B. Macadam 1st Base Course (Item B-20)	68.50 Sq. Yds.
5" W.B. Macadam 2nd Base Course (Item B-20)	68.50 Sq. Yds.
2½" T-50 Surface or T-61	67.44 Sq. Yds.
Traffic Bound (Item I-17)	4 Cu. Yds.
Excav. (Included in Roadway Excavation)	23 Cu. Yds.

ROAD APPROACH
STA. 117+33 Lt.
SPRING VALLEY ROAD
ESTIMATED QUANTITIES

5" W.B. Macadam 1st Base Course (Item B-20)	75.78 Sq. Yds.
5" W.B. Macadam 2nd Base Course (Item B-20)	75.78 Sq. Yds.
2½" T-50 Surface Course or T-61	74.27 Sq. Yds.
Excav. (Included in Roadway Excavation)	25 Cu. Yds.
Traffic Bound (Item I-17)	4 Cu. Yds.

ROAD APPROACH
STA. 117+33 Rt.
SPRING VALLEY ROAD
ESTIMATED QUANTITIES

5" W.B. Macadam 1st Base Course (Item B-20)	75.10 Sq. Yds.
5" W.B. Macadam 2nd Base Course (Item B-20)	75.10 Sq. Yds.
2½" T-50 Surface Course or T-61	73.62 Sq. Yds.
Excav. (Included in Roadway Excavation)	25 Cu. Yds.
Traffic Bound (Item I-17)	1 Cu. Yd.

Drawn By: J.W.B.	Date: 7-17-34
Checked By: H.W.A.	Date: 9-5-34
Checked By:	Date:

FED. AID DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR
10	OHIO		1934

33/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

TYPICAL FIELD DRIVES

Station	Side	Excav. (Incl. in Roadway Quan.)
59+62	Lt.	
71+63	Rt.	
75+53	Rt.	
75+63	Lt.	
86+91	Lt.	7 Cu. Yds.
87+84	Rt.	2 Cu. Yds.
89+73	Rt.	2 Cu. Yds.
97+78	Rt.	

TYPICAL PRIVATE DRIVES

Station	Side	Excav. (Incl. in Roadway Quan.)
15+18	Lt.	4 Cu. Yds.
26+21	Rt.	3 Cu. Yds.
32+55	Lt.	4 Cu. Yds.
63+90	Lt.	4 Cu. Yds.
65+42	Rt.	2 Cu. Yds.
86+91	Rt.	5 Cu. Yds.
105+25	Lt.	2 Cu. Yds.
113+92	Rt.	3 Cu. Yds.
125+21	Rt.	3 Cu. Yds.
139+98	Rt.	2 Cu. Yds.

TYPICAL FIELD DRIVE QUANTITIES

Traffic Bound (Item I-17)	3 Cu. Yds.

TYPICAL PRIVATE DRIVE QUANTITIES

5" W.B. Macadam Base Course (Item B-20)	10.68 Sq. Yds.
2½" T-50 Surface Course or T-61	11.56 Sq. Yds.
Traffic Bound (Item I-17)	2 Cu. Yds.

PRIVATE DRIVE STA. 46+92 Rt.

ESTIMATED QUANTITIES

5" W.B. Macadam Base Course (Item B-20)	10.72 Sq. Yds.
2½" T-50 Surface Course or T-61	11.60 Sq. Yds.
Traffic Bound (Item I-17)	2 Cu. Yds.
Exc. (Incl. in Roadway Quan.)	2 Cu. Yds.

PRIVATE DRIVE STA. 47+51 Lt.

ESTIMATED QUANTITIES

5" W.B. Macadam Base Course (Item B-20)	10.72 Sq. Yds.
2½" T-50 Surface Course or T-61	11.60 Sq. Yds.
Traffic Bound (Item I-17)	2 Cu. Yds.
Exc. (Incl. in Roadway Quan.)	2 Cu. Yds.

DRIVES TO FILLING STATION STATION 118+51 Lt.

ESTIMATED QUANTITIES

5" W.B. Macadam Base Course (Item B-20)	28.25 Sq. Yds.
2½" T-50 Surface Course or T-61	30.47 Sq. Yds.
Traffic Bound (Item I-17)	4 Cu. Yds.
Exc. (Incl. in Roadway Quan.)	12 Cu. Yds.

PRIVATE DRIVE STA. 123+57 Lt.

ESTIMATED QUANTITIES

5" W.B. Macadam Base Course (Item B-20)	11.70 Sq. Yds.
2½" T-50 Surface Course or T-61	11.58 Sq. Yds.
Traffic Bound (Item I-17)	2 Cu. Yds.
Exc. (Incl. in Roadway Quan.)	3 Cu. Yds.

PRIVATE DRIVE STA. 135+87 Lt.

ESTIMATED QUANTITIES

5" W.B. Macadam Base Course (Item B-20)	11.69 Sq. Yds.
2½" T-50 Surface Course or T-61	11.57 Sq. Yds.
Traffic Bound (Item I-17)	2 Cu. Yds.
Exc. (Incl. in Roadway Quan.)	5 Cu. Yds.

Drawn By: J.W.B.	Date: 7-7-34
Checked By: H.W.A.	Date: 9-5-34
Checked By:	Date:

FED. AID DIST. No	STATE	FED. AID PROJ.	FISCAL YEAR
10	OHIO		1934

34/44

SH 64 SEC. B
MONTGOMERY COUNTY

PLAN
Scale 1" = 5'-0"

CROSS-SECTION
Scale 1" = 5'-0"

CULVERT DATA

TYPE: Pipe Ext. Std. Dwg. S-27P.C.-1
SIZE: 18" X 8'-0" on Lt.
18" X 10'-0" on Rt.
WORK REQ'D: Extend exist. 18" X 28'-10¾" V.S.P. Enc. Culv. 8' Lt. & 10' Rt. and build hdwalls.

EST. QUANTITIES

Excavation (Fig'd. for V.S.P. enc.)	12 Cu. Yd.
Conc. (1:5½ Mix)	2.0 Cu. Yd.
Steel	52 Lbs.
18" Pipe	18 Lin. Ft.

Drawn By: R.H.	Date 8-27-34		
Checked By: O.T.M.	Date 9/7/34		
Checked By	Date		

STA. 3+47 (1)

NOTE: Payment for removal of exist. structure incl. with excavation

PLAN
Scale 1" = 5'-0"

CROSS-SECTION
Scale 1" = 5'-0"

HALF END VIEW HALF SEC.
Scale 1" = 1'-0"

STEEL LIST

Mark	Size	Shape	No.	L'gth	Spc'g.	Wt.
S3a	½" φ	Strt.	247	4'-1"	4½"	858
W2a	½" φ	"	98	3'-0"	1'-0"	196
T2a	"	"	6	22'-8"	1'-0"	91
T2b	"	"	14	25'-3"		236
C2a	"	Bent in field	10	3'-3"		22
C2b	"	Strt.	4	4'-1"		11
Total						1414

CULVERT DATA

TYPE: Std. Box Culv. Std. Dwg # SBC-34
SIZE: 3'-0" X 2'-0" X 49'-0"
WORK REQ'D: Remove exist. 3'-0" X 2'-0" X 28'-0" conc. and stone culv. Build Std. 3'-0" X 2'-0" X 49'-0" Conc. Box Culv. Excavate inlet.

EST. QUANTITIES

Excavation	35 Cu. Yd.
Concrete (1:5½ Mix)	14.1 Cu. Yd.
Reinf. Steel	1414 Lbs.

Drawn By: R.H.	Date 8-29-34		
Checked By: O.T.M.	Date 9-6-34		
Checked By	Date		

STA. 45+26.58 (6)

FED. AID DIST. No.	STATE	FED. AID PROJ.	FISCAL YEAR
10	OHIO		1934

35
44

SH 64 SEC. B
MONTGOMERY COUNTY

PLAN
Scale 1/4" = 1'-0"

SEC. A-A
Scale 1/2" = 1'-0"

BENDING DIAGRAMS

STEEL LIST						
Mark	Size	Shape	No.	L'gth	Sp'cg.	Wt.
SUBSTRUCTURE						
F4a	5/8" φ	Bent	32	6'-0"	1'-6"	200
D5b	3/4" φ	Strt.	16	2'-0"	1'-6"	48
W4a	5/8" φ	"	24	4'-0"		100
K4a	5/8" φ	"	6	2'-0"		13
Total						361
SUPERSTRUCTURE						
S5a	3/4" φ	Bent	11	14'-0"	4 3/4"	231
T2a	1/2" φ	Strt.	12	2'-2"		19
T2b	1/2" φ	"	12	1'-9"		14
D4a	5/8" φ	Bent	8	8'-6"		71
D5a	3/4" φ	"	8	8'-3"		99
D5b	3/4" φ	Strt.	16	2'-0"	1'-6"	48
R1b	3/8" φ	Strt.	8	2'-6"		Incl. for Payment with Type RR-12 Railing
R1a	3/8" φ	"	4	9'-8"		
R4a	5/8" φ	"	4	9'-8"		
R5a	3/4" φ	Bent	4	11'-7"		
Total						482

CROSS-SECTION
Scale 1/4" = 1'-0"

END VIEW
Scale 1/4" = 1'-0"

REPLACEMENT STEEL				
Mark	Size	No.	Length	Weight
Rep. 1	3/8" φ	2	3'-6"	3
Rep. 2	1/2" φ	2	4'-0"	5
Rep. 4	5/8" φ	2	4'-6"	9
Rep. 5	3/4" φ	2	5'-0"	15
Total				32

EST. QUANTITIES

SUBSTRUCTURE	
Excavation	35 Cu. Yd.
Concrete (1:6½ Mix) Footings	15.1 Cu. Yd.
" " Walls	22.2 " "
Reinf. Steel	361 Lbs.
1" φ X 12" Dowel Holes	16 Each
Removal Portions of Exist. Masonry	Lump Sum
SUPERSTRUCTURE	
Bit. Wearing Surface (Item T-50) ~~or (Item T-51)~~ Aver. Thickness 3"	37.3 Sq. Yd.
Conc. (1:5½ Mix)	3.9 Cu. Yd.
Reinf. Steel	514 Lbs.
Reinf. Conc. Railing (1:5½ Mix) Type R.R.-12 Mod.	26.0 Lin. Ft.
¼" Prem. Exp. Jt. Filler	30 Sq. Ft.
1" φ X 12" Dowel Holes	16 Each
Type "B" Waterproofing (36" Wide)	13.3 Sq. Yd.
Type "A" Waterproofing (24" Wide)	6.2 Sq. Yd.

CULVERT DATA

TYPE: Slab Bridge Ext. Std. Dwg. SB-33
SIZE: Ext., 2'-3" on Rt. & 1'-7" on Lt.
WORK REQ'D. Remove exist. curb, railing and exist. wings. Extend exist. 10'-0" span 20'-2" Rdwy, slab Br. 1'-7" on lt. & 2'-3" on rt.

MO 48-04
STA. 20+66

2

Drawn By R.H.	Date 7/12/34
Checked By O.T.M	Date 9-7-34
Checked By	Date

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

36/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

PLAN
Scale 1" = 5'-0"

NOTE: Payment for connection of 10" pipe into exist. 10" Field Tile incl. with 10" pipe.

Note: Removal of Exist. Conc. Headwalls and Stone Wings included in Excavation.

CULVERT DATA

TYPE: Pipe Ext. (Std Dr'wg S-27 P.C.1; I-8 C.B 1-2 & 2-2)
SIZE: 21" X 4'-0" on Lt.
21" X 12'-7" on Rt.
WORK REQ'D: Extend Ex. 20" X 33'-5" V.S.P. (Enc.) Culvert 4'-0" on Lt. & 12'-7" on Rt. and build Headwall on lt. & C.B. on rt.

EST. QUANTITIES

Excavation (Fig'd for V.S.P. enc.)	10 Cu. Yds.
Conc. (1:5½ Mix)	1.2 Cu. Yds.
Steel	30 Lbs.
21" Pipe	15 Lin. Ft.
10" Pipe (not under pav't)	16 Lin. Ft.
Std. Nº 2-2 C.B.	1 only

CROSS-SECTION
Scale 1" = 5'-0"

STA. 32+90.3

3

Drawn By: J.W.B.	Date: 7-16-34
Checked By: O.T.M.	Date: 9-7-34
Checked By:	Date:

STEEL						
Mark	Size	Shape	Nº	L'gth.	Sp'cg.	Wt.
S3a	½" φ	Strt.	280	4'-1"	4½"	1003
W2a	½" φ	"	112	4'-0"	1'-0"	200
T2a	½" φ	"	6	26'-0"		107
T2b	½" φ	"	18	28'-0"		346
C2a	½" φ	BEND IN FIELD	10	3'-3"		22
C2b	½" φ	Strt.	2	4'-1"		5
H2a	½" φ	BEND IN FIELD	3	21'-5"		43
H2b	½" φ	"	1	20'-2"		13
H2c	½" φ	Strt.	9	6'-6"		30
Total						1877

HALF END VIEW
Scale ½" = 1'-0"

PLAN

CROSS-SECTION
Scale 1" = 5'-0"

TYPICAL SECTION OF INLET & OUTLET DITCH
Scale ½" = 1'-0"

NOTE: Excavation for inlet & outlet ditch incl. with excavation for struct.

CULVERT DATA

TYPE: Std. Conc. Box SBC-34
SIZE: 3' X 3' X 56'-0"
WORK REQ'D.: Remove exist. 3' X 2' X 30.11' Conc. Box & wing walls. Build 3' X 3' X 56'-0" Conc. Box with Spc. Hdwall. on Lt. Excavate Inlet & Outlet Channels.

EST. QUANTITIES

Excavation	125 Cu. Yd.
Conc. (1:5½ Mix)	23.6 Cu. Yd.
Steel	1877 Lbs.
Removal of Exist. Struct.	Lump Sum

STA. 33+88

4

Drawn By: RH	Date: 9/5/34
Checked By: O.T.M.	Date: 9/11/34
Checked By:	Date:

FED. RD. DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR	37/44
10	OHIO		1934	

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

PLAN
Scale 1" = 5'-0"

CROSS SECTION

EST. QUANTITIES

Excavation	16 Cu. Yd.
Conc. (1:5½ Mix)	2.2 " "
Reinf. Steel	42 Lb.
24" Corr. M.P. (b-3 Paved Invert)	40 Lin. Ft.
Removal of Exist. Structure	Lump Sum

CULVERT DATA

TYPE: Corr. M. Pipe Side Road Culvert. Std. Drwg. S-27 P.C.1

SIZE: 24" x 40'-0"

WORK REQ'D: Remove exist. 30" x 26'-0" Corr. M.P. Culv. Build 24" x 40'-0" Corr. M.P. Culv. with Std. Side Road H'dwall on Rt. Outlet end of Prop. Pipe Culv. to pass thru. h'dwall of Culv. No 4 as shown.

Drawn By:	R.H.	9-10-34
Ch'k'd By:	E.E.D.	9-11-34
Ch'k'd By:		

STA. 34 + 14.5 Lt.

5

FED. AID. DIST. №	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO		1934

38
44

SH 64 SEC. B
MONTGOMERY COUNTY

PLAN
Scale 1" = 5'-0"

NOTE: Payment for removal of parts of exist. structure incl. with excavation

CROSS-SECTION
Scale 1" = 5'-0"

CULVERT DATA
TYPE: St'd. Pipe Culv. St'd. Dwg. # S-27 PC1
SIZE: 24" X 44'-0"
WORK REQ'D.: Remove exist. 24" X 24'-4" corr. I.P. culv. with stone H'dwalls. & wings on lt. Build 24" X 44'-0" St'd. Pipe Culv.

EST. QUANTITIES

Excavation (Fig'd. for V.S.P. enc.)	25 Cu. Yd.
Conc. (1:5½ Mix) H'dwalls	2.8 Cu. Yd.
Reinf. Steel	64 Lbs.
24" Pipe	44 Lin. Ft.

Drawn By: R.H.	Date 8/31/34
Checked By: O.T.M.	Date 9/6/34
Checked By	Date

STA. 55+33.35 (7)

PLAN
Scale 1" = 5'-0"

CROSS-SECTION
Scale 1" = 5'-0"

Note: Payment for removal of parts of existing structure included with excavation.

CULVERT DATA
TYPE: Std. Pipe Ext. Std. Dwg. S-27 P.C. 1
SIZE: 24" x 6'-0" Ext. on rt. 24" x 4'-0" Ext. on lt.
WORK REQ'D: Remove exist. headwalls & wings Ext. exist. 24" x 30.72' V.S.P. Enc. Culv. 6'-0" on rt. and 4'-0" on lt.

EST. QUANTITIES

Excavation: (Fig'd. for V.S.P. enc.)	11 Cu. Yds.
24" Pipe	10 Lin. Ft.
Concrete (1:5½ Mix) H'dwalls	2.8 Cu. Yds.
Reinforcing Steel	64 Lbs.

Drawn By R.H.	Date 8/30/34
Checked By: O.T.M.	Date 9-7-34
Checked By	Date

STA. 59+01.9 (8)

FED. AID DIST. No	STATE	FED. AID PROJ. No	FISCAL YEAR
10	OHIO		1934

39/44

S.H. 64 SEC."B"
MONTGOMERY COUNTY

PLAN
Scale 1"=5'-0"

STEEL LIST						
Mark	Size	Shape	No.	Length	Spac'g.	Weight
S5a	3/4" Φ	Strt.	117	7'-3"	5 1/2"	1275
~~C2a~~	~~1/2" Φ~~	~~Bent in Field~~	~~16~~	~~3'-3"~~		~~35~~
C2a	1/2" Φ	Bent in Field	16	3'-3"		35
C2b	1/2" Φ	Strt.	4	7'-3"		19
D5a	3/4" Φ	"	36	2'-0"		108
T2a	1/2" Φ	"	6	12'-6"		50
T2b	1/2" Φ	"	14	20'-0"		187
T2c	1/2" Φ	"	6	5'-0"		20
T2d	1/2" Φ	"	14	12'-6"		117
W2a	1/2" Φ	"	68	5'-3"		238
Total						2049

CROSS-SECTION
Scale 1"=5'-0"

HALF END HALF SEC. VIEW
Scale ½"=1'-0"

CULVERT DATA

TYPE: Conc. Box Culv. Std. Drawing No. S.B.C. 34
SIZE: 6'-0"x4'-0"x 13'-0" Extension on left.
6'-0"x4'-0"x 20'-6" Extension on right.
WORK REQ'D: Remove parts of existing 6'-0"x 4'-0"x 23'-8" conc. box structure. Build 6'-0"x4'-0"x 13'-0" ext. on left and 6'-0"x4'-0"x 20'-6" ext. on right. Dowel new structure to exist. structure and waterproof joint as shown

EST. QUANTITIES

Excavation	25 Cu.Yds.
Concrete (1:5½ Mix)	19.6 Cu.Yds.
Reinforcing Steel	2049 Lbs.
1"Φ x 1'-0" Dowel Holes	36 Each
Type "B" Waterproofing (36" wide)	12.6 Sq.Yd.

STA. 67+45.0

9

Drawn By R.H.	Date 8/23/34
Checked By OTM	Date 9/4/34
Checked By	Date

FED. AID DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
10	OHIO		1934

40/44

S.H. 64 SEC. "B"
MONTGOMERY CO.

SECTION D-D
Scale ½"=1'-0"

PLAN
Scale ¼"=1'-0"

CROSS SECTION
Scale ¼"=1'-0"

VIEW B-B
Scale: ¼"=1'-0"

PAVING SECTION
Scale ½"=1'-0"

VIEW A-A
Scale ¼"=1'-0"

Vertical steel only shown in this half

SECTION C-C
Scale: ½"=1'-0"

Refer to Sheet 41 for Est. Quantities Steel Lists & Bar Bending Diagrams

STA. 77+59.5 (10)

Drawn By R.H.	Date 9-7-34
Checked By R.H.H.	Date 9-11-34
Checked By	Date

FED. AID DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	41/44
10	OH10		1934	

S.H. 64 SEC. "B"
MONTGOMERY CO.

STEEL LIST

MARK	SIZE	SHAPE	SPACING	NO. REQ.	LENGTH	WEIGHT
LEFT EXTENSION						
A4a	5/8"φ	Bent	6½"	10	17'-9"	185
A4b	5/8"φ	Bent	6½"	2	23'-3"	49
A4c	5/8"φ	Bent	6½"	3	21'-1"	66
A4d	5/8"φ	Bent	6½"	2	18'-11"	39
A4e	5/8"φ	Bent	6½"	3	16'-9"	52
B4a	5/8"φ	Str't	19½"	9	9'-6"	89
C2a	½"φ	Bent	19½"	9	10'-0"	60
D4a	5/8"φ	Str't	19½"	4	6'-0"	25
D4b	5/8"φ	Str't	19½"	2	6'-10"	14
D4c	5/8"φ	Str't	19½"	2	5'-10"	12
D4d	5/8"φ	Str't	19½"	4	4'-10"	20
D4e	5/8"φ	Str't	19½"	2	3'-10"	8
E4a	5/8"φ	Str't	As Shown	17	3'-2"	56
E4b	5/8"φ	Str't	As Shown	4	7'-2"	30
E4c	5/8"φ	Str't	As Shown	25	11'-2"	292
H2a	½"φ	Bent	12"	10	3'-7"	24
H2b	½"φ	Bent	12"	10	4'-3"	28
H2c	½"φ	Str't	12"	2	9'-6"	13
H2d	½"φ	Str't	12"	3	14'-6"	29
H2e	½"φ	Str't	As Shown	8	6'-3"	33
W4a	5/8"φ	Bent	8"	10	4'-3"	44
W4a1	5/8"φ	Bent	8"	10	4'-3"	44
X5a	3/4"φ	Str't	24"	14	2'-0"	42
TOTAL						1254
RIGHT EXTENSION						
A5a	3/4"φ	Bent	7¾"	16	20'-0"	481
A5b	3/4"φ	Bent	7¾"	2	18'-10"	57
A5c	3/4"φ	Bent	7¾"	2	19'-2"	58
A5d	3/4"φ	Bent	7¾"	2	24'-10"	75
A5e	3/4"φ	Bent	7¾"	2	23'-0"	69
A5f	3/4"φ	Bent	7¾"	2	21'-2"	64
A5g	3/4"φ	Bent	7¾"	2	19'-6"	59
B5a	3/4"φ	Str't	23¼"	12	11'-0"	198
B5b	3/4"φ	Str't	23¼"	2	10'-6"	32
C4a	5/8"φ	Bent	23¼"	12	11'-9"	147
C4b	5/8"φ	Bent	23¼"	2	11'-3"	23
D4a1	5/8"φ	Str't	23¼"	10	6'-3"	65
D4b1	5/8"φ	Str't	23¼"	2	7'-0"	15
D4c1	5/8"φ	Str't	23¼"	2	6'-1"	13
D4d1	5/8"φ	Str't	23¼"	2	5'-2"	11
D4e1	5/8"φ	Str't	23¼"	2	4'-3"	9
W4b	5/8"φ	Bent	8"	10	5'-3"	55
W4b1	5/8"φ	Bent	8"	10	6'-3"	65
E4a1	5/8"φ	Str't	As Shown	17	10'-3"	182
E4b1	5/8"φ	Str't	As Shown	4	17'-9"	74
E4c1	5/8"φ	Str't	As Shown	25	19'-9"	515
H2a	½"φ	Bent	12"	11	3'-7"	26
H2b	½"φ	Bent	12"	11	4'-3"	31
H2c1	½"φ	Str't	12"	2	11'-0"	15
H2d1	½"φ	Str't	12"	3	18'-3"	37
H2e1	½"φ	Str't	As Shown	10	7'-0"	47
X5a	3/4"φ	Str't	24"	14	2'-0"	42
TOTAL						2465
PAVING						
P2a	½"φ	Str't	12"	8	25'-6"	136
P2b	½"φ	Str't	24"	13	6'-9"	59
TOTAL						195
REPLACEMENT						
Rep 5	3/4"φ	Str't	–	2	6'-3"	19
Rep 4	5/8"φ	Str't	–	2	5'-6"	11
Rep 2	½"φ	Str't	–	2	5'-0"	7
TOTAL						37
GRAND TOTAL						3951

BAR BENDING DIAGRAMS

GENERAL NOTES

CONCRETE MIX shall be 1:5½ thruout for box and paving.
EXPOSED EDGES to be beveled ¾" unless otherwise shown.
EMBANKMENT to be placed symmetrically on both sides of barrel; embankment over barrel to be placed in horizontal layers simultaneously with that on each side of culvert.
CONSTRUCTION JOINTS as indicated to be carefully constructed and free from laitance, dirt, sawdust etc.
HEADERS & CUT-OFF WALLS to be cast integrally with slab ends.
REPLACEMENT BARS shall be furnished to replace test specimens which will be cut from ends of reinforcing bars and submitted for testing purposes

ESTIMATED QUANTITIES

Excavation	35. Cu.Yd.
Removal of Portions of Exist. Masonry	Lump Sum
Concrete 1:5½ Mix	37.7 Cu.Yd.
Reinforcing Steel	3951 Lb.
Type "B" Waterproofing 36" wide	21.0 Sq.Yd.
1"φ × 12" Dowel Holes	28 Each.

CULVERT DATA

TYPE: Mod. Std. Conc. Box Culv. Std. Dwg. No. L.B.C. 33
SIZE: 8'-0" × 5'-0" × 11'-6" Ext. Lt. & 8'-0" × 5'-0" × 20'-1⅝" Ext. Rt.
WORK REQ: Remove headwalls and wings of Existing 8.0' × 5.0' × 25.85' Slab Top Culv. Extend with 8'-0" × 5'-0" × 11'-6" Mod. Std. Conc. Box on Lt. and 8'-0" × 5'-0" × 20'-1⅝" Mod. Std. Conc. Box on Rt. Pave bottom of Exist. Culv. with 6" Reinf. Conc. Slab. Apply Type "B" Waterproofing 36" wide as shown. Dowel new structures to old.

Drawn By R.H.	Date: 9-7-34
Checked By R.H.H.	Date: 9-11-34
Checked By	Date:

(10) STA. 77+59.5

FED. AID DIST. No	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO		1934

42/44

SH 64 SEC. B MONTGOMERY COUNTY

PLAN
Scale 1" = 5'-0"

CROSS SECTION

PLAN

NOTE: Payment for removal of parts of exist. structure incl. with excavation

CROSS-SECTION
Scale 1" = 5'-0"

STEEL

Mark	Size	Shape	No.	L'gth.	Spc'g.	Wt.
S5a	¾" φ	Str't.	109	7'-3"	5½"	1188
W2a	½" φ	"	64	5'-3"	1'-0"	224
T2a	½" φ	"	6	4'-6"		18
T2a1	½" φ	"	6	11'-3"		45
T2b	½" φ	"	14	12'-0"		112
T2b1	½" φ	"	14	18'-9"		175
C2a	½" φ	"	16	3'-3"		35
C2b	½" φ	"	4	7'-3"		19
D5a	¾" φ	"	36	2'-0"	1'-0"	108
Total						1924

HALF END VIEW HALF SEC.

Scale ½" = 1'-0"

CULVERT DATA

TYPE: Corr. M.Pipe Side Road Culv.
Std. Drwg. S-27 P.C. 1
SIZE: 15" x 38'-0"
WORK REQ'D: Remove exist. 15" x 25' Corr. M.P. Culv. Build Std. 15" x 38'-0" Corr. M.P. Side Road Culv.

EST. QUANTITIES

Excavation	22 Cu.Yd.
Conc. (1:5½ Mix)	2.7 " "
Reinf. Steel	65 Lb.
15" Corr. M. Pipe (b-3 Paved Invert)	38 Lin.Ft.
Removal of Exist. Structure	Lump Sum

CULVERT DATA

TYPE: Conc. Box Ext. Std. Dwg. No SBC-34
SIZE: 6'X4'X12'-6" Lt.
6'X4'X19'-3" Rt.
WORK REQ'D: Remove h'dwalls & wings of exist. 6.05' X 3.85' X 25.95' conc. box Extend with 6'X4' conc. box 12'-6" on lt. and 19'-3" on rt. Rebuild stone h'dwall on rt. Dowel new struct. to exist. struct. & waterproof joint as shown

EST. QUANTITIES

Excavation	45 Cu.Yd.
Conc. (1:5½ Mix)	18.5 Cu.Yd.
Reinf. Steel	1924 Lbs.
1" φ X 12" Dowel Holes	36 Each
Rubble Stone Masonry	5.7 Cu.Yd.
Type "B" Waterproofing (36" wide)	12.6 Sq.Yd.
18" Pipe Not under Pav't	5. Lin.Ft.

Drawn By R.H.	Date 9-12-34
Ch'k'd By R.H.H.	Date 9-12-34
Ch'k'd By	Date

STA. 89+84 Lt. (11.)

Drawn By R.H.	Date 9/4/34
Checked By O.T.M.	Date 9/5/34
Checked By	Date

STA. 97+63.33 (12)

FED. AID DIST. No	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO		1934

43/44

SH 64 SEC. B
MONTGOMERY COUNTY

PLAN
SCALE 1" = 5'-0"

CROSS SECTION
SCALE 1" = 5'-0"

CULV. DATA

TYPE: Side Road Corr. M.P. Culv. (Std. Drwg. I-8 C.B. 1-2 & 2-2)
SIZE: 24" x 50'-0"
WORK REQ.: Remove Exist. 3'-0" x 1'-6" x 21'-6" Conc. Slab top culv., Build 24" x 50'-0" Corr. M. Pipe Culv. with Std. No 2-2 C.B. on Inlet end. Connect Exist. 10" Tile into Catch Basin.

EST. QUANT.

Excavation (Fig'd. for Corr. M. Pipe)	17. Cu. Yd.
Std. No 2-2 C.B.	1 Only
10" Pipe not under Pavt.	6 Lin. Ft.
24" Corr. M. Pipe (b-3) Paved Invert	50 " "
Removal of Exist. Structure	Lump Sum

(13) STA. 117+33

Drawn By:	O.T.M.	Date	9-10-34
Checked By:	F.E.D.	Date	9-11-34
Checked By:		Date	

NOTE: Payment for removal of parts of exist. struct. incl. with excavation.

PLAN
Scale 1" = 5'-0"

CROSS-SECTION
Scale 1" = 5'-0"

STEEL

Mark	Size	Shape	No.	Length	Sp'c'g.	Wt.
S5a	3/4"φ	Str't.	117	7'-3"	5½"	1275
W2a	½"φ	"	66	5'-3"	1'-0"	231
T2a	½"φ	"	6	11'-6"		46
T2b	½"φ	"	14	19'-0"		178
T2a1	½"φ	"	6	5'-6"		22
T2b1	½"φ	"	14	13'-6"		126
C2a	½"φ	"	16	3'-3"		35
C2b	½"φ	"	4	7'-3"		19
D5a	3/4"φ	"	36	2'-0"	1'-0"	108
Total						2040

HALF END VIEW HALF SEC.
Scale ½" = 1'-0"

CULVERT DATA

TYPE: Conc. Box Ext. Std. Dwg. SBC 34
SIZE: 6' x 4' x 14'-0" Ext. Rt.
6' x 4' x 19'-6" Ext. Lt.
WORK REQ'D: Remove h'dwalls. and wings of exist. 6' x 4.1' x 23.75' conc. box. Extend with 6' x 4' conc. box 14'-0" on rt. & 19'-6" on lt. Dowel new struct. to exist. struct. & waterproof joint as shown.

EST. QUANTITIES

Excavation	25 Cu. Yd.
Conc. 1:5½ Mix	19.6 Cu. Yd.
Reinf. Steel	2040 Lbs.
1"φ x 12" Dowel Holes	36 Each
Type "B" Waterproofing (36" Wide)	12.9 Sq. Yd.

Drawn By	R.H.	Date	9/4/34
Checked By	O.T.M.	Date	9/5/34
Checked By		Date	

STA. 132+57.25 (14)

SUMMARY OF QUANTITIES

FED. AID DIST. Nº	STATE	FED. AID PROJ. Nº	FISCAL YEAR
10	OHIO		1934

44/44

S.H. 64 SEC. "B"
MONTGOMERY COUNTY

STRUCTURES 20 FT. SPAN & UNDER

Nº	STATION	TYPE	SIZE	LENGTH	EXCAVATION	CONCRETE CU. YD. 1:6½ MIX FTG.	CONCRETE CU. YD. 1:6½ MIX WALL	CONCRETE CU. YD. 1:5½ MIX	REINF. STEEL LB.	PIPE LIN. FT. 18"	PIPE LIN. FT. 21"	PIPE LIN. FT. 24"	PIPE NOT UNDER PAV'T. LIN. FT. 10"	PIPE NOT UNDER PAV'T. LIN. FT. 18"	CORR. M. PIPE (b-3) PAVED INVERT LIN. FT. 15"	CORR. M. PIPE (b-3) PAVED INVERT LIN. FT. 24"	STD. Nº 2-2 C.B. (STD. DRWG. 1-8 C.B. 1-2 & 2-2) EACH	DOWEL HOLES 1"ϕ × 12" EACH	¼" PREM. EXP. JT. FILLER SQ. FT.	TYPE A WATERPROOFING 24" WIDE SQ. YD.	TYPE B WATERPROOFING 36" WIDE SQ. YD.	BIT. WEAR. SURF. AV. THICKNESS 3" T-50 or T-61 SQ. YD.	REINF. CONC. RAILING TYPE RR-12 MOD. 1:5½ MIX LIN. FT.	RUBBLE STONE MASONRY CU. YD.	REMOVAL PORTIONS EXISTING MASONRY LUMP SUM	REMOVAL EXISTING STRUCTURE LUMP SUM		STD. DRWG. Nº	SHEET Nº
1	3+47	STD. PIPE	18"	8'-0" EXT. LT. 10'-0" EXT. RT.	12			2.0	52	18																		S-27 P.C. 1	34
2	20+66	CONC. SLAB BR.	10' SPAN 24' RDWY.	1'-7" EXT. LT. 2'-3" EXT. RT.	35	15.1	22.2	3.9	875									32	30.0	6.2	13.3	37.3	26.0		LUMP			SB-33	35
3	32+90.3	STD. PIPE	21"	4'-0" EXT. LT. 12'-7" EXT. RT.	10			1.2	30		15		16				1											S-27 P.C. 1	36
4	33+88	CONC. BOX	3'-0"×3'-0"	56'-0"	125			23.6	1877																	LUMP		SBC-34	36
5	34+14.5 LT.	S.R. CORR. M. PIPE	24"	40'-0"	16			2.2	42							40										LUMP		S-27 P.C. 1	37
6	45+26.58	CONC. BOX	3'-0"×2'-0"	49'-0"	35			14.1	1414																			SBC-34	34
7	55+33.35	STD. PIPE	24"	44'-0"	25			2.8	64			44																S-27 P.C. 1	38
8	59+01.9	STD. PIPE	24"	6'-0" EXT. RT. 4'-0" EXT. LT.	11			2.8	64			10																S-27 P.C. 1	38
9	67+45	CONC. BOX	6'-0"×4'-0"	13'-0" EXT. LT. 20'-6" EXT. RT.	25			19.6	2049									36			12.6							SBC-34	39
10	77+59.5	CONC. BOX	8'-0"×5'-0"	11'-6" EXT. LT. 20'-1½" EXT. RT.	35			37.7	3951									28			21.0				LUMP			LBC-33	40-41
11	89+84 LT.	S.R. CORR. M. PIPE	15"	38'-0"	22			2.7	65						38											LUMP		S-27 P.C. 1	42
12	97+63.33	CONC. BOX	6'-0"×4'-0"	12'-6" EXT. LT. 19'-3" EXT. RT.	45			18.5	1924					5				36			12.6			5.7				SBC-34	42
13	117+33.0 LT.	S.R. CORR. M. PIPE	24"	50'-0"	17								6			50	1											I-8 C.B. 1-2 & 2-2	43
14	132+57.25	CONC. BOX	6'-0"×4'-0"	14'-0" EXT. RT. 19'-6" EXT. LT.	25			19.6	2040									36			12.9							SBC-34	43
				TOTALS	438	15.1	22.2	150.7	14447	18	15	54	22	5	38	90	2	168	30.0	6.2	72.4	37.3	26.0	5.7	LUMP	LUMP			

REMOVE & STORE EX. TYPE "B" GD. RAIL ~ ITEM I-15

Sheet Nº	Lin. Ft.
7	40
9	40
Total =	80

ROADWAY DRAINAGE

Sheet Nº	Pipe Item I-3 Lin. Ft. 12"	Pipe Item I-3 Lin. Ft. 24"	Std. I-8 Nº 2-2 Catch Basin Each
7		95	
11	528		2
Total =	528	95	2

PAVEMENT CALCULATIONS

Begin Project _____ Sta. 0+00
End Project _____ Sta. 144+17.86
Length of Project _____ 14417.86 Lin. Ft.

DEDUCTION:

Culvert (See Summary) _____ 14.00 Lin. Ft.
Net Length of Pavement _____ 14403.86 Lin. Ft.
Deduct for full width sections (See Sheet Nº 2) = 635.00 Lin. Ft.
Total Length of Resurfacing & Widening _____ 13768.86 Lin. Ft.
Deduct for 7½" Min. Resurf. (See Sheet Nº 3) _____ 2500.00 " "
Net Length of 2½" Min. Resurf. _____ 11268.86 Lin. Ft.

2½" BITUMINOUS SURFACE COURSE (ITEM T-50 or T-61)

Net Length of Pav't. _____ 14403.86 Lin. Ft.
14403.86 × 20/9 = _____ 32008.6 Sq. Yd.
Drives, Approaches, & Flares (See Summary) _____ 691.9 " "
Total 2½" Bituminous Surf. Course _____ 32700.5 Sq. Yd.

5" W.B. MAC. 1ST BASE COURSE & WIDENING (ITEM B-20)

Net Length of Full Width Section (See Sheet Nº 2) _____ 635.00 Lin. Ft.
635.00 × 21/9 = _____ 1481.7 Sq. Yd.
Net Length of 7½" Min. Resurf. Section (See Sheet Nº 3) _____ 2500.00 Lin. Ft.
2500.00 × 6.1/9 (Avg. Widening) _____ 1694.4 Sq. Yd.
Net Length 2½" Min. Resurf. _____ 11268.86 Lin. Ft.
11268.86 × 6.2/9 (Avg. Widening) _____ 7763.0 Sq. Yd.
Drives, Approaches, & Flare (See Summary) _____ 622.9 " "
Total 5" W.B. Mac. 1ST Base Course & Widening = 11562.0 Sq. Yd.

5" W.B. MAC. 2ND BASE COURSE & WIDENING (Item B-20)

Net Length Full Width Section (See Above) _____ 635.00 Lin. Ft.
635.00 × 21/9 = _____ 1481.7 Sq. Yd.
Net Length 7½" Min. Resurf. (See Above) = 2500.00 Lin. Ft.
2500.00 × 21/9 = _____ 5833.3 Sq. Yd.
Net Length 2½" Min. Resurf. (See Above) = 11268.86 Lin. Ft.
11268.86 × 6.2/9 (Avg. Widen.) = _____ 7763.0 Sq. Yd.
Approaches & Flares (See Summary) _____ 443.0 " "
Total 5" W.B. Mac. 2ND Base Course & Widening _____ 15521.0 Sq. Yd.

W.B. MAC. LEVELING COURSE (ITEM B-20)

CROWN OF EXIST. PAV'T ON ℄ OF PROP. PAV'T

Area = 0.62 □'
Length = 900.00 Lin. Ft.

900.00 × 0.62/27 = _____ 20.7 Cu. Yd.

Ch'k'd By: H.W.A. & M.A.C. 9-13-34
Ch'k'd By: _____

PAV'T CALCULATIONS (CONT'D)

CROWN OF EXIST. PAV'T LT. OF ℄ OF PROP. PAV'T

Area = 2.25 □'
Length = 1200.00 Lin. Ft.

1200.00 × 2.25/27 = _____ 100.0 Cu. Yd.
Extra _____ 10.3 " "
Total W.B. Mac. Leveling Course _____ 110.0 Cu. Yd.

BIT. LEVEL. COURSE (ITEM B-50 or B-61)

CROWN OF EXIST. PAV'T ON ℄ OF PROP. PAV'T

Area = 1.04 □'
Length = 5468.86'

5468.86 × 1.04/27 = _____ 210.7 Cu. Yd.

CROWN OF EXIST. PAV'T LT. OF ℄ OF PROP. PAV'T

Area = 1.42 □'
Length = 3000.00'

3000.00 × 1.42/27 = _____ 157.8 Cu. Yd.

CROWN OF EXIST. PAV'T RT. OF ℄ OF PROP. PAV'T

Area = 1.16 □'
Length = 2800.00'

2800.00 × 1.16/27 = _____ 120.3 Cu. Yd.
Extra (Includes Transitions Sta. 80+00 – 82+00 & Sta. 109+00 – 111+00) _____ 61.2 " "
Total Bit. Level. Course Item B-50 or B-61 _____ 550.0 Cu. Yd.
Extra Binder Item T-50 or T-61 _____ 200 Cu. Yd.

CUTTING & SEALING EXIST. PAV'T EDGE (ITEM E-10)

Total Length of Resurfacing & Widening _____ 13768.86 Lin. Ft.
13768.86 × 2 = _____ 27537.72 " "
Flare (See Summary) _____ 88.00 " "
Total (Item E-10) _____ 27625.72 Lin. Ft.

SHOULDERS, SLOPES, & DITCHES (ITEM E-5)

Gross Length of Project _____ 14417.86 Lin. Ft.
Net Addition (See Summary) _____ 30.00 " "
Total Shoulders, Slopes, & Ditches _____ 14447.86 Lin. Ft.

TRAFFIC BOUND SIDE APPROACHES (ITEM I-17) (SIZE Nº 4G)

Berms 14447.86 × 3 × ⅓ × 1/27 = 535.1 Use _____ 541 Cu. Yd.
Mail Boxes 18 × 3 = _____ 54 " "
Drives & Approaches (See Summary) _____ 75 " "
Total Traffic Bound Side Approaches (Size Nº 4G) = 670 Cu. Yd.

STONE UNDERDRAIN (ITEM I-9) (TO BE PLACED AS DIRECTED)

10" × 8" Nº 2 Mod. _____ 2000.00 Lin. Ft.
12" × 15" Nº 1 (See Sheet Nº 2) _____ 350.00 " "
10" ROADWAY DRAINAGE PIPE FOR STONE UNDERDRAIN OUTLETS (To be placed as directed) _____ 100.00 Lin. Ft.

EXCAVATION & EMBANKMENT

Station to Station	Excav. Cu. Yd.	Embank. Cu. Yd.	Emb. +20% Cu. Yd.	Borrow Cu. Yd.	Waste Cu. Yd.	Net Waste Cu. Yd.
0+00 – 16+10	315	263	315			
16+10 – 33+61	262	625	750	488		
33+61 – 55+00	475	396	475			
55+00 – 85+11.7	780	650	780			
85+11.7 – 105+00	1278	489	587		691	
105+00 – 125+00	716	189	227		489	
125+00 – 144+17.86	908	209	251		657	
Total =	4734	2821	3385	488	1837	1349

DEDUCTIONS

Sheet Nº	Pavement Lin. Ft.	Shoulders Slopes & Ditches Item E-5 Lin. Ft.
6	14.0	14.0

CLEANING OUT EXIST'G PIPE

Sheet Nº	Lin. Ft.
5	138 *

*Carried on Estimate as "Lump Sum".

DRIVES, APPROACHES & FLARE

Sheet Nº	W.B. Mac. Base Courses Item B-20 Sq. Yd. 1ST 5"	W.B. Mac. Base Courses Item B-20 Sq. Yd. 2ND 5"	2½" Bituminous Surf. Course T-50 or T-61 Sq. Yd.	Traffic Bound Item I-17 Size Nº 4G Cu. Yd.	Shoulders Slopes & Ditches Item E-5 Lin. Ft.	Cutting & Sealing Ex. Pav't. Edge Item E-10 Lin. Ft.
5	10.68		11.56	2		
6	10.68		11.56	2		
7	134.29	123.61	132.41	9		
8	21.44		23.20	4		
9				3		
10	89.86	68.50	90.56	11		
11				6		
12	87.50	76.82	86.82	14		
13				3		
14	21.36		23.12	4		
15	201.51	150.88	201.50	13		
16	11.69		11.57	2		
17	33.90	23.22	90.56	2	44	88
Total =	622.91	443.03	691.86	75	44	88

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